

# Installation and Operating Guide | Warranty

Model Number | DVB312 | DVD Player



## Safety Precautions



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK  
DO NOT REMOVE COVER (OR BACK)  
NO USER-SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**ATTENTION:** POUR ÉVITER LES CHOC ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

**WARNING:** Do not install this equipment in a confined space such as a book case or similar unit.

CLASS 1 LASER PRODUCT  
KLASSE 1 LASER PRODUKT  
LUOKAN 1 LASER LAITE  
KLASS 1 LASER APPARAT  
CLASSE 1 PRODUIT LASER

### CAUTION:

This Digital Video Disc Player employs a Laser System.

To ensure proper use of this product, please read this owner's manual carefully and retain for future reference should the unit require maintenance, contact an authorized service location (see service procedure).

Use of controls, adjustments, or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

To prevent direct exposure to laser beam, do not try to open the enclosure. Visible laser radiation when open. **DO NOT STARE INTO BEAM.**

**CAUTION:** The apparatus should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on the apparatus.

**FCC WARNING:** This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

### REGULATORY INFORMATION: FCC Part 15

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is operated in a residential installation. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the product off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the product and receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC COMPLIANCE:** The responsible party for this product's compliance is: Zenith Electronics Corporation, 2000 Millbrook Drive, Lincolnshire, IL 60069, USA.  
Phone: 1-847-941-8000



### NOTES ON COPYRIGHTS:

It is forbidden by law to copy, broadcast, show, broadcast via cable, play in public, or rent copyrighted material without permission.

This product uses copyright protection developed by Macrovision. Copy protection signals are recorded on some discs. When recording and playing the pictures of these discs on a VCR, picture noise will appear.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

**SERIAL NUMBER:** The serial number is found on the back of this unit. This number is unique to this unit and not available to others. You should record requested information here and retain this guide as a permanent record of your purchase.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

# IMPORTANT SAFETY INSTRUCTIONS

**CAUTION: PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS IN THIS OWNER'S MANUAL. AND THOSE MARKED ON THE PRODUCT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.**

This product has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this product will protect you if you observe the following procedures for installation, use, and servicing.

This product does not contain any parts that can be repaired by the user.

**DO NOT REMOVE THE CABINET COVER, OR YOU MAY BE EXPOSED TO DANGEROUS VOLTAGE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.**

1. **Read these instructions.** - All these safety and operating instructions should be read before the product is operated.
2. **Keep these instructions.** - The safety, operating and use instructions should be retained for future reference.
3. **Heed all warnings.** - All warnings on the product and in the operating instructions should be adhered to.
4. **Follow all instructions.** - All operating and use instructions should be followed.
5. **Do not use this product near water.** - For example: near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement; or near a swimming pool; and other areas located near water.
6. **Clean only with dry cloth.** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners.
7. **Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.** - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from over-heating. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
8. **Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.**
9. **Do not defeat the safety purpose of the polarized or grounding-type plug.** A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. **Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.**
11. **Only use attachments/accessories specified by the manufacturer.**
12. **Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with apparatus. When a cart is used, use caution when moving the cart/product combination to avoid injury from tip-over.**
13. **Unplug this product during lightning storms or when unused for long periods of time.**
14. **Refer all servicing to qualified service personnel.** Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.



## Table of Contents

### Introduction

Safety Precautions .....	2
<b>IMPORTANT SAFETY INSTRUCTIONS</b> .....	3
<b>Table of Contents</b> .....	4
<b>Before Use</b> .....	5-6
Playable Discs .....	5
Precautions .....	6
Notes on Discs .....	6
About Symbols .....	6
<b>Front Panel and Display Window</b> .....	7
<b>Remote Control</b> .....	8
<b>DVD Connections Panel</b> .....	9

### Preparation

<b>Connections</b> .....	10-11
Connecting to a TV .....	10
Optional Equipment Connections .....	11
<b>Before Operation</b> .....	12-15
General Explanation .....	12
On-Screen Display .....	12
Initial Settings .....	13-15
• <i>Initial Settings General Operation</i> .....	13
• <i>Language</i> .....	13
• <i>Picture</i> .....	13
• <i>Sound</i> .....	14
• <i>Others</i> .....	14
• <i>Parental Control</i> .....	15

### Operation

<b>DVD Operation</b> .....	16-18
Playing a DVD .....	16
General Features .....	16
• <i>Moving to another TITLE</i> .....	16
• <i>Moving to another CHAPTER</i> .....	16
• <i>Search</i> .....	16
• <i>Still Picture and Frame-by-Frame Playback</i> .....	17
• <i>Slow Motion</i> .....	17
• <i>Random</i> .....	17
• <i>Repeat</i> .....	17
• <i>Repeat A-B</i> .....	17
• <i>Time Search</i> .....	17
• <i>3D Surround</i> .....	17
• <i>Zoom</i> .....	18
• <i>Marker Search</i> .....	18
Special DVD Features .....	18
• <i>Title Menu</i> .....	18
• <i>Disc Menu</i> .....	18
• <i>Camera Angle</i> .....	18
• <i>Changing the Audio Language</i> .....	18
• <i>Subtitle</i> .....	18

### Audio CD and MP3/WMA Operation ..... 19-20

Playing an Audio CD or MP3/WMA Disc .....	19
Notes on MP3/WMA Recordings .....	19
• <i>Pause</i> .....	20
• <i>Moving to another Track</i> .....	20
• <i>Repeat Track/ All/ Off</i> .....	20
• <i>Search</i> .....	20
• <i>Random</i> .....	20
• <i>Repeat A-B</i> .....	20
• <i>3D Surround</i> .....	20
• <i>Changing the Audio Channel</i> .....	20

### JPEG Disc Operation ..... 21

Viewing a JPEG Disc .....	21
• <i>Moving to another File</i> .....	21
• <i>Still Picture</i> .....	21
• <i>To flip the picture</i> .....	21
• <i>To rotate the picture</i> .....	21
• <i>Notes on JPEG Recordings</i> .....	21

### Programmed Playback ..... 22

Programmed Playback with Audio CD and MP3/WMA Discs .....	22
• <i>Repeat Programmed Tracks</i> .....	22
• <i>Erasing a Track from Program List</i> .....	22
• <i>Erasing the Complete Program List</i> .....	22

### Additional Information ..... 23

Screen Saver .....	23
Video Mode .....	23

### Reference

Troubleshooting .....	24
Language Code List .....	25
Country Code List .....	26
Specifications .....	27
Warranty .....	Back Cover

### About the symbols for instructions



Indicates hazards likely to cause harm to the unit itself or other material damage.





Indicates special operating features of this unit.



Indicates tips and hints for making the task easier.

## Before Use

### Playable Discs

	DVD (8 cm / 12 cm disc)
	Audio CD (8 cm / 12 cm disc)

In addition, this unit can play a DVD-R, DVD±RW, and CD-R or CD-RW that contains audio titles, MP3, WMA or JPEG files.

#### Notes

- Depending on the conditions of the recording equipment or the CD-R/RW (or DVD-R/±RW) disc itself, some CD-R/RW (or DVD-R/±RW) discs cannot be played on the unit.
- Do not attach any seal or label to either side (the labeled side or the recorded side) of a disc.
- Do not use irregularly shaped CDs (e.g., heart-shaped or octagonal). The unit may malfunction.

#### Notes on DVDs

Some playback operations of DVDs may be intentionally fixed by software manufacturers. As this unit plays DVDs according to disc content designed by the software manufacturer, some playback features of the unit may not be available or other functions may be added. Refer also to the instructions supplied with the DVDs. Some DVDs made for business purposes may not be played on the unit.

#### Regional code of the DVD player and DVDs

This DVD player is designed and manufactured for playback of region “1” encoded DVD software.



The region code on the labels of some DVD discs indicates which type of player can play those discs. This unit can play only DVD discs labeled “1” or “ALL”. If you try to play any other discs, the message “Check Regional Code” will appear on the TV screen. Some DVD discs may not have a region code label even though their playback is prohibited by area limits.

### Disc-related terms

#### Title (DVD only)

The main film content or accompanying feature content or additional feature content, or music album.

Each title is assigned a title reference number enabling you to locate it easily.

#### Chapter (DVD only)

Sections of a picture or a musical piece that are smaller than titles. A title is composed of one or several chapters. Each chapter is assigned a chapter number, enabling you to locate the chapter you want. Depending on the disc, chapters may not be recorded.

#### Track (Audio CD only)

Sections of a musical piece on an audio CD. Each track is assigned a track number, enabling you to locate the track you want.

## Before Use (Continued)

### Precautions

#### Handling the unit

##### When shipping the unit

The original shipping carton and packing materials come in handy. For maximum protection, re-pack the unit as it was originally packed at the factory.

##### When setting up the unit

The picture and sound of a nearby TV, VCR, or radio may be distorted during playback. In this case, position the unit away from the TV, VCR, or radio, or turn off the unit after removing the disc.

##### To keep the exterior surfaces clean

Do not use volatile liquids, such as insecticide spray, near the unit. Do not leave rubber or plastic products in contact with the unit for a long period of time. They will leave marks on the surface.

#### Cleaning the unit

##### To clean the cabinet

Use a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth lightly moistened with a mild detergent solution. Do not use strong solvents such as alcohol, benzene, or thinner, as these might damage the surface of the unit.

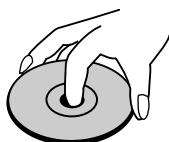
##### To obtain a clear picture

The DVD player is a high-tech, precision device. If the optical pick-up lens and disc drive parts are dirty or worn, the picture quality will be poor. Regular inspection and maintenance are recommended after every 1,000 hours of use. (This depends on the operating environment.) For details, please contact your nearest dealer.

### Notes on Discs

#### Handling discs

Do not touch the playback side of the disc. Hold the disc by the edges so that fingerprints will not get on the surface. Do not stick paper or tape on the disc.

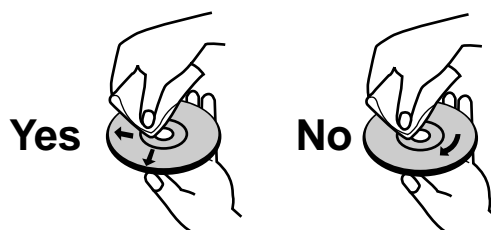


#### Storing discs

After playing, store the disc in its case. Do not expose the disc to direct sunlight or sources of heat, or leave it in a parked car exposed to direct sunlight, as there may be a considerable temperature increase inside the car.

#### Cleaning discs


Fingerprints and dust on the disc can cause poor picture quality and sound distortion. Before playing, clean the disc with a clean cloth. Wipe the disc from the center out.



Do not use strong solvents such as alcohol, benzene, thinner, commercially available cleaners, or anti-static spray intended for older vinyl records.






### About Symbols

#### About the symbol display

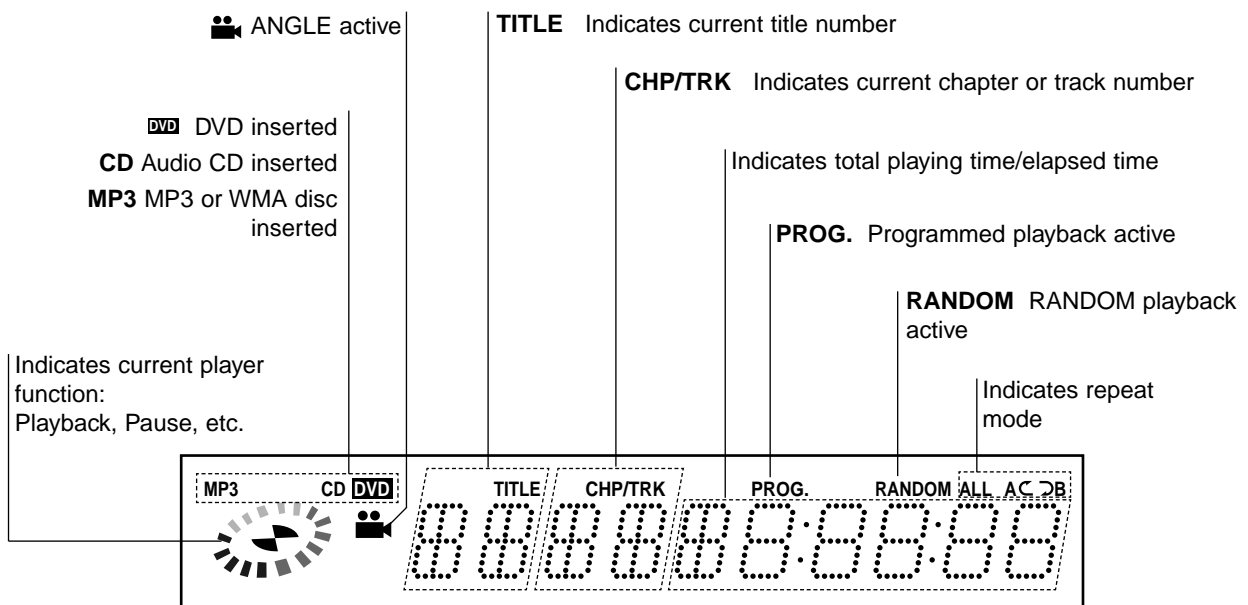
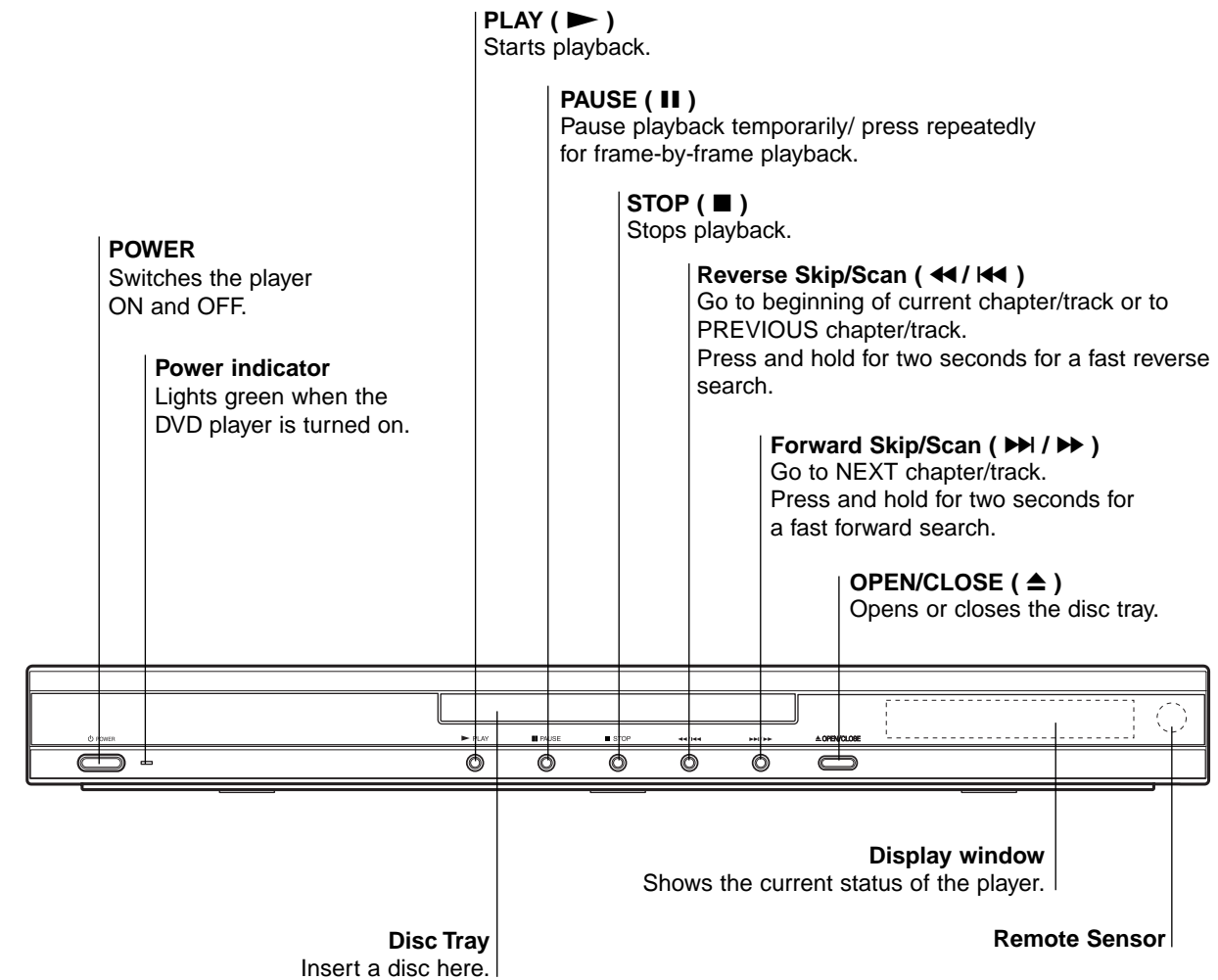
" " may appear on the TV screen during operation. This icon means the function explained in this owner's manual is not available on that specific DVD video disc.

#### About the disc symbols for instructions

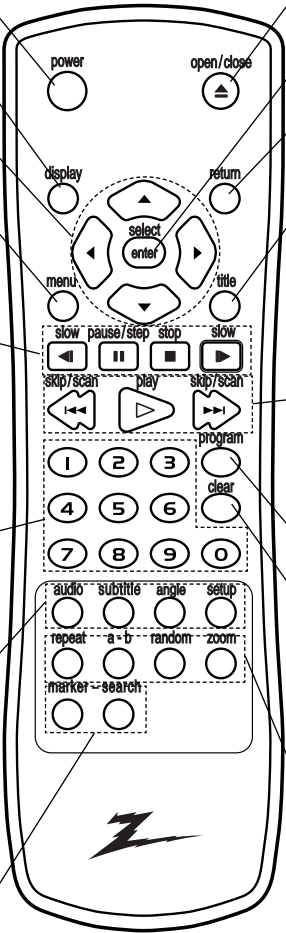
A section whose title has one of the following symbol is applicable only to the disc represented by the symbol.

-  DVD
-  Audio CDs.
-  MP3 disc.
-  WMA disc.
-  JPEG disc.

## Front Panel and Display Window



## Remote Control



**POWER**  
Switches DVD Player ON and OFF.

**DISPLAY**  
Accesses On-Screen display.

**◀▶▲▼ (left/right/up/down)**  
Selects an option in the menu.

**MENU**  
Accesses menu on a DVD disc.

**Reverse SLOW (◀I) •**  
Reverse slow playback.

**PAUSE/STEP (II) •**  
Pauses playback temporarily/ press repeatedly for frame-by-frame playback.

**STOP (■) •**  
Stops playback.

**Forward SLOW (I▶) •**  
Forward slow playback.

**0-9 number buttons**  
Select numbered options in a menu.

**AUDIO •**  
Selects an audio language (DVD) or an audio channel (CD).

**SUBTITLE •**  
Selects a subtitle language.

**ANGLE •**  
Selects a DVD camera angle if available.

**SETUP •**  
Accesses or removes setup menu.

**MARKER •**  
Marks any point during playback.

**SEARCH •**  
Displays MARKER SEARCH menu.

**OPEN/CLOSE**  
Opens and closes the disc tray.

**SELECT/ENTER**  
Acknowledges menu selection.

**RETURN**  
Removes the setup menu.

**TITLE**  
Displays the disc's Title menu, if available.

**• Forward SKIP/SCAN (▶▶I)**  
Search forward\*/ go to next chapter or track.

**• PLAY (▶) •**  
Starts playback.

**• Reverse SKIP/SCAN (I◀◀)**  
Search backward\*/ go to beginning of current chapter or track or go to previous chapter or track.

\* Press and hold button for about two seconds.

**PROGRAM**  
Enters/exits the program edit mode.

**CLEAR**  
Removes a track number on the program list or a mark on the MARKER SEARCH menu.

**• REPEAT**  
Repeat chapter, track, title, all.

**• A-B**  
Repeat sequence.

**• RANDOM**  
Plays tracks in random order.

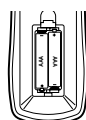
**• ZOOM**  
Enlarges video image.

### Remote Control Operation Range

Point the remote control at the remote sensor and press the buttons.

- **Distance:** About 23 ft (7 m) from the front of the remote sensor.
- **Angle:** About 30° in each direction of the front of the remote sensor.

### Remote Control Battery Installation



Detach the battery cover on the rear of the remote control, and insert two R03 (size AAA) batteries with + and - aligned correctly.

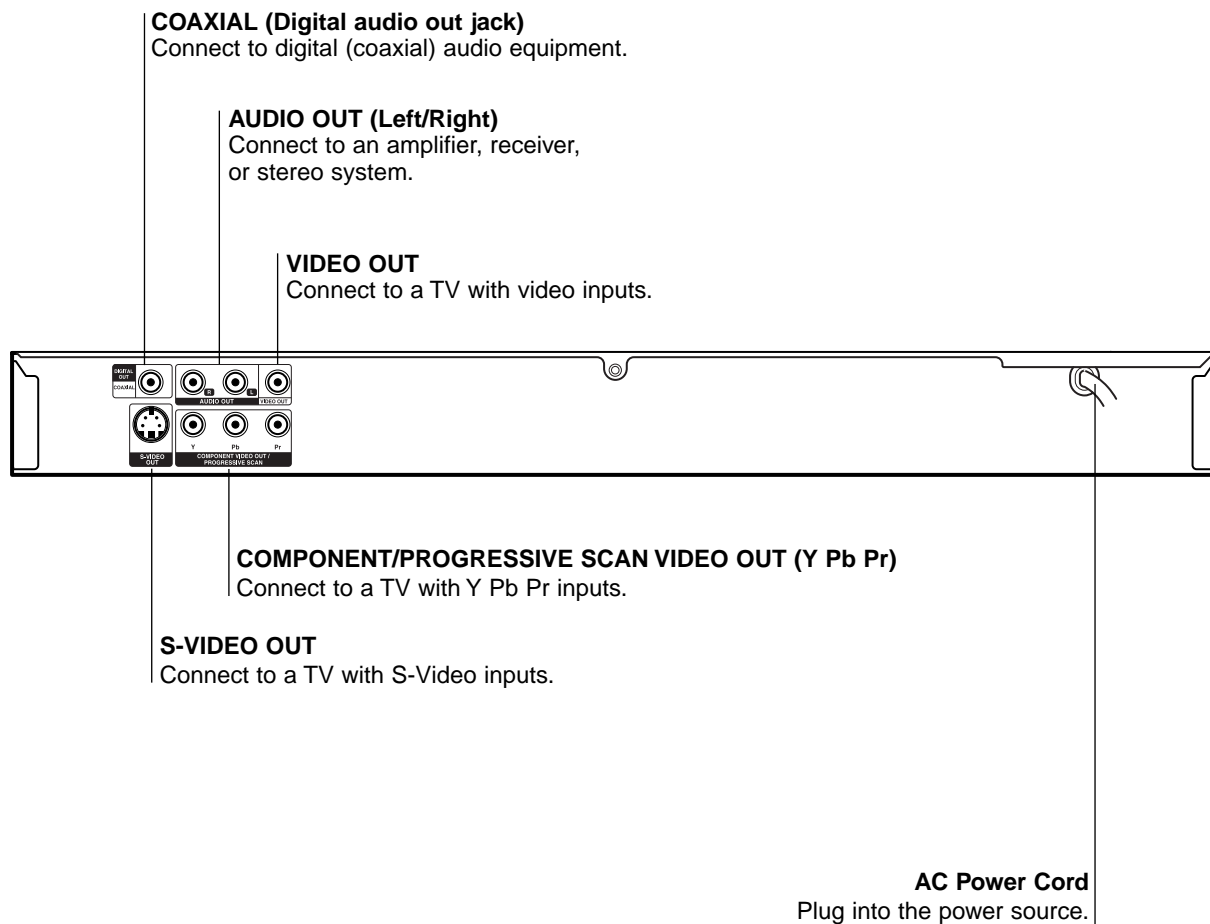


#### Caution

Do not mix old and new batteries. Never mix different types of batteries (standard, alkaline, etc.).



## DVD Connections Panel



**Do not touch the inner pins of the jacks on the DVD connections panel. Electrostatic discharge may cause permanent damage to the unit.**

## Connections

### Tips

- Depending on your TV and other equipment you wish to connect, there are various ways you could connect the player. Use only one of the connections described below.
- Please refer to the manuals of your TV, VCR, Stereo System or other devices as necessary to make the best connections.
- For better sound reproduction, connect the player's AUDIO OUT jacks to the audio in jacks of your amplifier, receiver, stereo or audio/video equipment. See "Optional Equipment Connections" on page 10.

### Caution

- Make sure the DVD Player is connected directly to the TV. Tune the TV to the correct video input channel.
- Do not connect the DVD Player's AUDIO OUT jack to the phono in jack (record deck) of your audio system.
- Do not connect your DVD Player via your VCR. The DVD image could be distorted by the copy protection system.

## Connecting to a TV

- Make one of the following connections, depending on the capabilities of your existing equipment.

### Video connection

- 1 Connect the VIDEO OUT jack on the DVD Player to the video in jack on the TV using the supplied video cable (V).
- 2 Connect the DVD Player's Left and Right AUDIO OUT jacks to the audio left/right in jacks on the TV using the supplied audio cables (A).

### S-Video connection

- 1 Connect the S-VIDEO OUT jack on the DVD Player to the S-Video in jack on the TV using the supplied S-Video cable (S).
- 2 Connect the DVD Player's Left and Right AUDIO OUT jacks to the audio left/right in jacks on the TV using the supplied audio cables (A).

### Component Video (Color Stream®) connection

- 1 Connect the COMPONENT VIDEO OUT/ PROGRESSIVE SCAN jacks on the DVD Player to the corresponding in jacks on the TV with optional Y Pb Pr cables (C).
- 2 Connect the DVD Player's Left and Right AUDIO OUT jacks to the audio left/right in jacks on the TV using the supplied audio cables (A).

### Progressive Scan (ColorStream® pro) connection

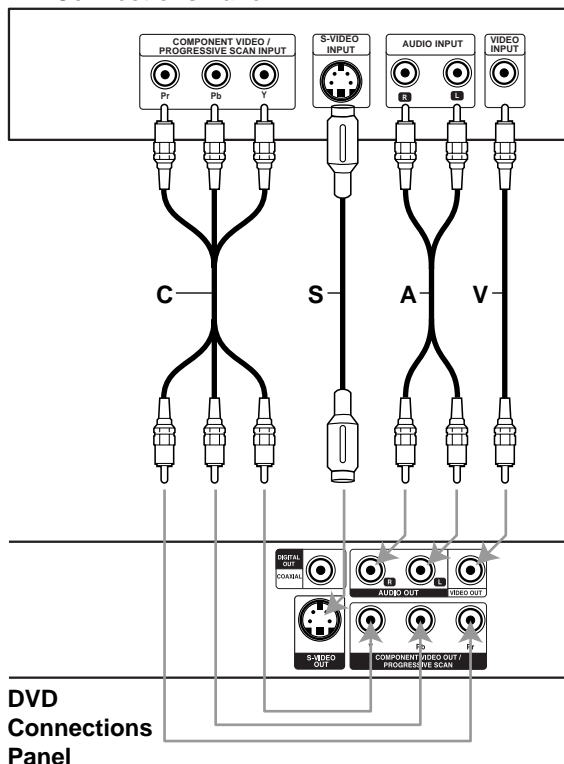
- If your television is high-definition or "digital ready", television, you may take advantage of the DVD Player's progressive scan output for the highest video resolution possible.
- If your TV does not accept the Progressive Scan format, the picture will appear scrambled if you use the DVD's Progressive Scan output.

- 1 Connect the COMPONENT VIDEO OUT/ PROGRESSIVE SCAN jacks on the DVD Player to the corresponding in jacks on the TV using an optional Y Pb Pr cable (C).
- 2 Connect the DVD Player's Left and Right AUDIO OUT jacks to the audio left/right in jacks on the TV using the supplied audio cables (A).

### Notes

- Set the Progressive to "On" on the setup menu for progressive signal, see page 13.
- Progressive scan does not work with the analog video connections (yellow VIDEO OUT jack).

### TV Connections Panel



### DVD Connections Panel

## Connections (Continued)

### Optional Equipment Connections

#### Connecting to an amplifier equipped with 2-Channel analog stereo or Dolby Pro Logic II/Pro Logic

Connect the Left and Right AUDIO OUT jacks on the DVD Player to the audio left and right in jacks on your amplifier, receiver, or stereo system, using the audio cables (A).

#### Connecting to an amplifier equipped with 2-Channel digital stereo (PCM) or to an Audio/Video receiver equipped with a multi-channel decoder (Dolby Digital™, MPEG 2, or DTS)

- 1 Connect one of the DVD Player's DIGITAL AUDIO OUT jacks (COAXIAL X) to the corresponding in jack on your amplifier. Use an optional digital (coaxial X) audio cable.
- 2 You will need to activate the player's digital output. (See "Digital Audio Output" on page 14).

#### Digital Multi-channel sound

A digital multi-channel connection provides the best sound quality. For this you need a multi-channel Audio/Video receiver that supports one or more of the audio formats supported by your DVD Player (MPEG 2, Dolby Digital and DTS). Check the receiver manual and the logos on the front of the receiver.

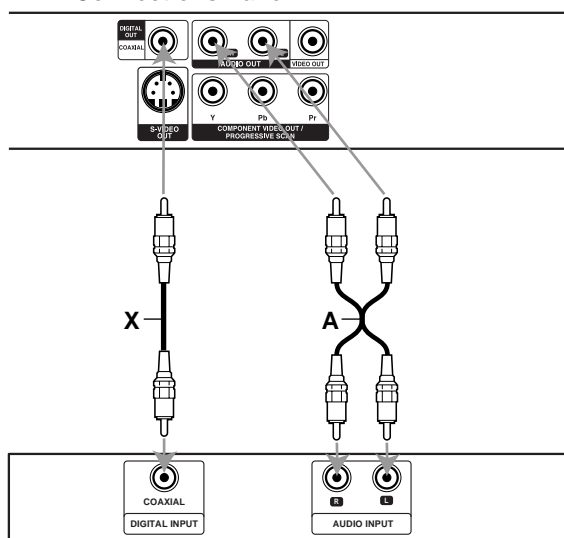
#### Caution:

Due to the DTS Licensing agreement, the digital output will be in DTS digital out when DTS audio stream is selected.

#### Notes

- If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.
- Six Channel Digital Surround Sound via digital connection can only be obtained if your receiver is equipped with a Digital Multi-channel decoder.
- To see the audio format of the current DVD in the on-screen display, press AUDIO.


#### DVD Connections Panel



#### Amplifier (Receiver)

## Before Operation

### General Explanation

This manual gives basic instructions for operating the DVD Player. Some DVDs require specific operation or allow only limited operation during playback. When this occurs, the symbol  appears on the TV screen, indicating that the operation is not permitted by the DVD Player or is not available on the disc.







### On-Screen Display

General playback status can be displayed on the TV screen. Some options can be changed on the menu.

#### On-screen display operation

- 1** Press **DISPLAY** during playback.
- 2** Use **▲/▼** to select a menu option.  
The selected option will be highlighted.
- 3** Use **◀▶** to change the setting of a menu option.  
The number buttons can also be used for setting numbers (e.g., title number). For some functions, press **SELECT/ENTER** to execute the setting.








#### Playback Status/Restrictions

-  Repeat Title
-  Repeat Chapter
-  Repeat A-B
-  Repeat Off
-  Resume play from this point
-  Action prohibited or not available

#### Notes

- Some discs may not provide all of the features on the on-screen display example shown below.
- If no button is pressed for 10 seconds, the on-screen display disappears.

#### DVD

Menu Options		Function (Use ▲/▼ to select desired options)	Selection Method
Title Number	 1 / 3	Shows the current title number and total number of titles, and skips to the desired title number.	◀ / ▶, or Numbers, SELECT/ENTER
Chapter Number	 1 / 12	Shows the current chapter number and total number of chapters, and skips to the desired chapter number.	◀ / ▶, or Numbers, SELECT/ENTER
Time search	 0:20:09	Shows the elapsed playing time, and searches the point by the elapsed time directly.	Numbers, SELECT/ENTER
Audio language and Digital Audio Output mode	 1 ENG DOLBY DIGITAL 5.1 CH	Shows the current audio soundtrack language, encoding method, and channel number, and changes the setting.	◀ / ▶, or AUDIO
Subtitle language	 OFF	Shows the current subtitles language, and changes the setting.	◀ / ▶, or SUBTITLE
Angle	 1 / 1	Shows the current angle number and total number of angles, and changes the angle number.	◀ / ▶, or ANGLE
Sound	 NORM.	Shows the current sound mode, and changes the setting.	◀ / ▶

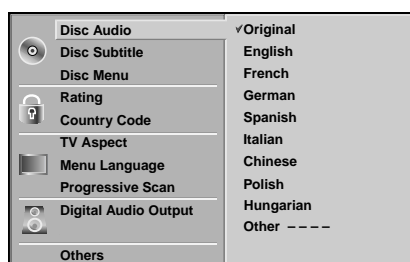
## Before Operation (Continued)

### Initial Settings

You can set your own Personal Preferences on the player.

### Initial Settings General Operation

- 1 Press **SETUP**.  
The setup menu appears.



- 2 Use **▲/▼** to select the desired option.  
The screen will show the current setting for the selected option, as well as alternate setting(s).
- 3 While the desired option is selected, press **►**, then **▲/▼** to select the desired setting.
- 4 Press **SELECT/ENTER** to confirm your selection.  
Some options require additional steps.
- 5 Press **SETUP**, **RETURN**, or **PLAY** to exit and remove the setup menu.

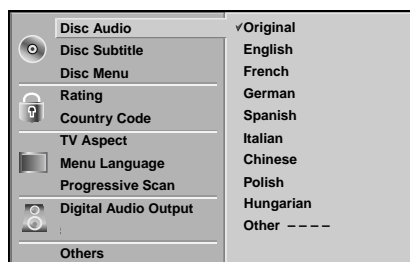
### Language

#### Disc Language **(DVD)**

Select a language for the disc's Menu, Audio, and Subtitle.

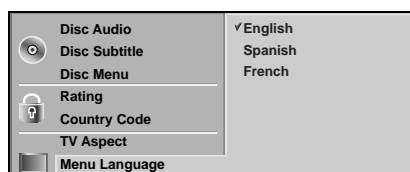
**Original:** The original language set for the disc is selected.

**Other:** To select another language, use number buttons to enter the corresponding 4-digit number according to the language code list on page 25. If you enter the wrong language code, press **CLEAR**.



#### Menu Language

Select a language for the setup menu. This is the menu you see when you press **SETUP**.



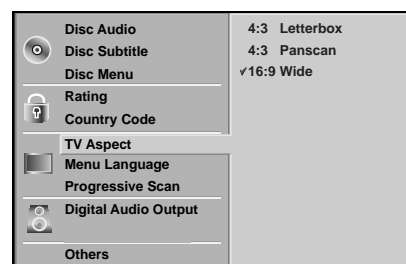
### Picture

#### TV Aspect **(DVD)**

**4:3 Letterbox:** Select when a standard 4:3 TV is connected. Displays theatrical images with masking bars above and below the picture.

**4:3 Panscan:** Select when a conventional TV set is connected. The video material formatted in the Pan & Scan style is played back in that style (Both sides of the picture are cut off).

**16:9 Wide:** Select when a 16:9 wide TV is connected.



#### Progressive Scan **(DVD)**

Progressive Scan Video provides the highest quality picture with less flickering.

- If you are using the COMPONENT VIDEO OUT/ PROGRESSIVE SCAN jacks, but are connecting the DVD Player to a standard (analog) television, set Progressive Scan to Off.
- If you are using the Component Video jacks for connection to a TV or monitor that is compatible with a progressive scan signal, set Progressive Scan to On.



#### Caution

Once the setting for progressive scan output is entered, an image will only be visible on a progressive scan compatible TV or monitor. If you set Progressive Scan to On in error, you must reset the unit. Press **STOP** to stop any disc that is playing. Next, press **STOP** again and hold it for five seconds before releasing it. The video output will be restored to the standard setting, and a picture will once again be visible on a conventional analog TV or monitor.

## Before Operation (Continued)

### Sound

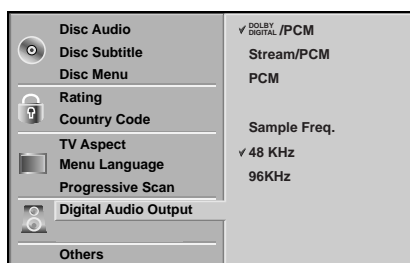
#### Digital Audio Output

Each DVD disc has a variety of audio output options. Set the player's Digital Audio Output according to the type of audio system you use.

**DOLBY DIGITAL/PCM:** Select "DOLBY DIGITAL/PCM" if you connect the DVD Player's DIGITAL OUT jack to a Dolby Digital decoder (or an amplifier or other equipment with a Dolby Digital decoder).

**Stream/PCM:** Select "Stream/PCM" if you connect the DVD Player's DIGITAL OUT jack to an amplifier or other equipment with a DTS decoder, Dolby Digital decoder or MPEG decoder.

**PCM:** Select "PCM" if you connect to a 2-channel digital stereo amplifier. The DVD player outputs sounds in the PCM 2ch format; when you play a DVD video disc recorded on the Dolby Digital, MPEG1, or MPEG2 recording system.



#### Sample Frequency

To change the Sample Frequency setting, first select the desired Digital Audio Output as indicated as above.

If your receiver or amplifier is NOT capable of handling 96KHz signals, select 48KHz. When this choice is made, this unit will automatically convert any 96KHz signals to 48KHz so your system can decode them.

If your receiver or amplifier is capable of handling 96KHz signals, select 96KHz. When this choice is made, this unit will pass each type of signal through without any further processing.

### Others

DRC, Vocal and Auto Play settings can be changed.

- Use ▲/▼ to select the desired option and press SELECT/ENTER. The setting of the selected option can be changed between On and Off.



#### Dynamic Range Control (DRC)

With the DVD format, you can hear a program's sound-track in the most accurate and realistic presentation possible, thanks to digital audio technology. However, you may wish to compress the dynamic range of the audio output (the difference between the loudest sounds and the quietest ones). Then, you may listen to a movie at a lower volume without losing clarity of sound. Set DRC to On for this effect.

#### Vocal

Set Vocal to On only when a multi-channel karaoke DVD is playing. The karaoke channels on the disc will mix into normal stereo sound.

#### Auto Play DVD

You can set up the DVD Player so a DVD disc automatically starts playing whenever the DVD is inserted.

If Auto Play mode is set to On, this DVD player will search for title that has the longest playback time and then play back the title automatically.

**On:** Auto Play function is activated.

**Off:** Auto Play function is not activated.



ote

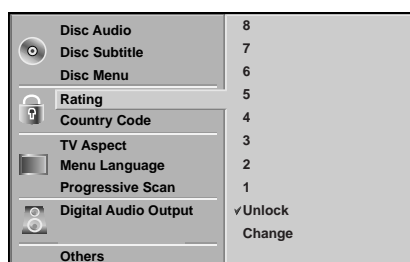
The Auto Play function may not work for some DVDs.

## Before Operation (Continued)

### Parental Control

#### Rating **DVD**

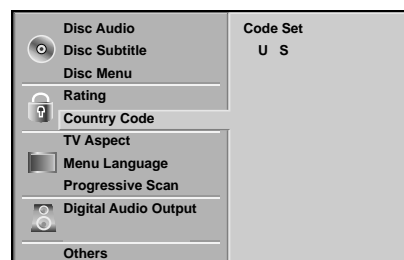
Movies on DVDs may contain scenes not suitable for children. Therefore, discs may contain Parental Control information that applies to the complete disc or to certain scenes on the disc. These scenes are rated from 1 to 8, and alternatively, more suitable scenes are available for selection on some discs. Ratings are country-dependent. The Parental Control feature allows you to prevent discs from being played by your children or to have certain discs played with alternative scenes.



- 1** Select "Rating" on the Setup menu using the ▲/▼ buttons.
- 2** While "Rating" is selected, press ►.
- 3** When you have not entered a password yet. Enter a 4-digit password using the numbered buttons and create a personal 4-digit security password, then press SELECT/ENTER. Enter the 4-digit password again and press SELECT/ENTER to verify.  
**When you have already entered a password;** Enter a 4-digit password using the numbered buttons to confirm the personal 4-digit security password, then press SELECT/ENTER.  
  
If you make a mistake before pressing SELECT/ENTER, press CLEAR and enter 4-digit security password again.
- 4** Select a rating from 1 to 8 using the ▲/▼ buttons. One (1) has the least playback restrictions. Eight (8) has the most playback restrictions.  
**Unlock:** If you select Unlock, Parental Control is not active. The entire disc will play in full.  
**Ratings 1 to 8:** Some discs contain scenes not suitable for children. If you set a rating for the player, all disc scenes with the same rating or lower will be played. Higher rated scenes will not be played unless an alternative scene is available on the disc. The alternative must have the same rating or a lower one. If no suitable alternative is found, playback will stop. You must enter the 4-digit password or change the rating level in order to play the disc.
- 5** Press SELECT/ENTER to confirm your rating selection, then press SETUP to exit the menu.

#### Country Code **DVD**

Enter the code of a country/area whose standards were used to rate the DVD video disc, referring to the list (See "Country Code List", page 26.).



- 1** Select Country Code using the ▲/▼ buttons on the setup menu.
- 2** While Country Code is selected, press ►.
- 3** Follow step 3 of "Rating" on left.
- 4** Select the first character using the ▲/▼ buttons.
- 5** Shift the cursor using ► button and select the second character using ▲/▼ buttons.
- 6** Press SELECT/ENTER to confirm your country code selection, then press SETUP to exit the menu.

#### Note

Confirmation of the 4-digit password is necessary when the code is changed (see "Changing the 4-digit code" below.).

#### Changing the 4-digit code

- 1** Follow Steps 1-2 as shown above to the left (Rating).
- 2** Enter the old code, then press SELECT/ENTER.
- 3** Select Change using ▲/▼ buttons then press SELECT/ENTER.
- 4** Enter the new 4-digit code, then press SELECT/ENTER.
- 5** Enter exactly the same code a second time and verify by pressing SELECT/ENTER.
- 6** Press SETUP to exit the menu.

#### If you forgot your 4-digit password

If you forget your password, to clear the current password, follow the procedure below.

- 1** Press SETUP to display the Setup menu.
- 2** Use the Number buttons to enter the 6-digit number "210499".  
The 4-digit password is cleared. "P CLr" appears on the display for a moment.
- 3** Enter a new password as shown above to the left (Rating).



## DVD Operation

### Playing a DVD

#### Playback Setup **DVD**

- Turn on the TV and select the video input source connected to the DVD player.
- Audio system: Turn on the audio system and select the input source connected to the DVD player.

**1** Press OPEN/CLOSE to open the disc tray.

**2** Load your chosen disc in the tray, with the playback side down.

**3** Press OPEN/CLOSE to close the tray. READING appears on the TV screen, and playback starts automatically. If playback does not start, press PLAY.  
In some cases, the disc menu might appear instead.

#### If a menu screen is displayed

A menu screen may be displayed first after loading a DVD with menus.

#### **DVD**

Use the ◀ ▶▲▼ buttons to select the title/chapter you want to view, then press SELECT/ENTER to start playback. Press TITLE or MENU to return to the menu screen.

#### Notes

- If Parental Control is set and the disc is not within the Rating settings (not authorized), the 4-digit code must be entered and/or the disc must be authorized (see “Parental Control”, on page 15).
- DVDs may have a Region Code. Your player will not play discs that have a Region Code different from your player. The region code for this player is 1 (one).

### General Features

#### Note

Unless stated otherwise, all operations described use the remote control. Some features may also be available on the Setup menu.

#### Moving to another TITLE **DVD**



When a disc has more than one title, you can move to another title as follows:

- Press DISPLAY then use the appropriate numbered button (0-9) to select a title number.

#### Moving to another CHAPTER



When a title on a disc has more than one chapter, you can move to another chapter as follows:

- Press SKIP/SCAN ◀◀ or ▶▶ briefly during playback to select the next chapter or to return to the beginning of the current chapter.
- Press ◀◀ twice briefly to step back to the previous chapter.
- To go directly to any chapter during DVD playback, press DISPLAY. Then, use ▲/▼ to select the chapter icon. Then, enter the chapter number using the numbered buttons (0-9).

#### Note

Press two-digit numbered buttons (0-9) in rapid succession. For example, press 0, 2 instead of pressing only 2.

#### Search **DVD**

- 1 Press and hold SKIP/SCAN ◀◀ or ▶▶ for about two seconds during playback. The player will now go into SEARCH mode.
- 2 Press and hold SKIP/SCAN ◀◀ or ▶▶ repeatedly to select the required speed: ◀◀X2, ◀◀X4, ◀◀X16, ◀◀X100 (backward) or ▶▶X2, ▶▶X4, ▶▶X16, ▶▶X100 (forward).
- 3 To exit SEARCH mode, press PLAY.



## DVD Operation (Continued)

### General Features (Continued)

#### Still Picture and Frame-by-Frame Playback

##### DVD

- 1 Press PAUSE/STEP during playback.  
The player will go into PAUSE mode.
- 2 You can advance the picture frame-by-frame by pressing PAUSE/STEP repeatedly on the remote control.

#### Slow Motion **DVD**

- 1 Press SLOW ◀◀ or ▶▶ during playback.  
The DVD player will enter SLOW mode.
- 2 Use the SLOW ◀◀ or ▶▶ to select the required speed:  
◀◀ 1/16, ◀◀ 1/8, ◀◀ 1/4 or ◀◀ 1/2 (backward), or  
▶▶ 1/16, ▶▶ 1/8, ▶▶ 1/4 or ▶▶ 1/2 (forward).
- 3 To exit slow motion mode, press PLAY.

#### Random **Karaoke DVD**

- 1 Press RANDOM during playback or in stop mode.  
The unit automatically begins Random Playback and "RANDOM" appears on the display window.
- 2 To return to normal playback, press RANDOM until "RANDOM" disappears from the display window.



By pressing SKIP/SCAN ▶▶ during Random playback, the unit selects another title and resumes Random playback.



This function only works with DVD Karaoke discs.

#### Repeat **DVD**



##### DVD Video Discs - Repeat Chapter/Title/Off

- 1 To repeat the currently playing chapter, press REPEAT.  
The Repeat Chapter icon appears on the TV screen.
- 2 To repeat the title currently playing, press REPEAT a second time.  
The Repeat Title icon appears on the TV screen.
- 3 To exit Repeat mode, press REPEAT a third time.  
The Repeat Off icon appears on the TV screen.

#### Repeat A-B **DVD**



To repeat a sequence in a title:

- 1 Press A-B at your chosen start point.  
"A \*" appears briefly on the TV screen.
- 2 Press A-B again at your chosen end point.  
"A B" appears briefly on the TV screen, and the repeat sequence begins ("A B" appears the display window).
- 3 To cancel the sequence, press A-B.

#### Time Search **DVD**



The Time Search function allows you to start playing at any chosen time on the disc.

- 1 Press DISPLAY during playback. The on-screen display appears on the screen.  
The Time Search box shows the elapsed playing time of the current disc.
- 2 Within 10 seconds, use ▲/▼ to select the Time Search icon on the on-screen display.  
The ":-:--:-" appears in the Time Search box.
- 3 Within 10 seconds, use the number buttons to enter the required start time. Enter hours, minutes, and seconds from left to right in the box.  
If you enter the wrong numbers, press CLEAR to remove the numbers you entered. Then enter the correct numbers.
- 4 Within 10 seconds, press SELECT/ENTER to confirm the start time.  
Playback starts from the selected time on the disc. If you enter an invalid time, playback will continue from the current point.

#### 3D Surround **DVD**



This DVD player can produce a 3D Surround effect, which simulates multi-channel audio playback from two conventional stereo speakers, instead of the five or more speakers normally required to listen to multi-channel audio from a home theater system.

- 1 Press DISPLAY during playback.
- 2 Use ◀ or ▶ to select the sound option.  
The sound option will be highlighted.
- 3 Use ▲ or ▼ to select "3D SUR".  
To turn off the 3D Surround effect, select "NORM".

## DVD Operation (Continued)

### General Features (Continued)

#### Zoom **DVD**

The Zoom function allows you to enlarge the video image and to move through the enlarged image.

- 1 Press ZOOM during playback or still playback to activate the Zoom function.  
If you press ZOOM repeatedly, the magnification level increases up to six steps.
- 2 Use the ◀▶▲▼ buttons to move through the zoomed picture.
- 3 Press CLEAR to resume normal playback or return to the paused image.

#### **N**ote

- The zoom function may not work for some DVDs.

#### Marker Search **DVD**



You can start playback from a memorized point. Up to nine Marker points can be memorized. To enter a marker point, follow these steps.

- 1 During disc playback, press MARKER when playback reaches the spot that you want to memorize.  
The Marker icon will appear on the TV screen briefly.
- 2 Repeat step 1 to enter up to nine Marker points on a disc.

#### To Recall a Marked Scene

- 1 During disc playback, press SEARCH.  
The MARKER SEARCH menu will appear on the screen.
- 2 Within 10 seconds, use ◀▶ to select a Marker number that you want to recall.
- 3 Press SELECT/ENTER.  
Playback will start from the Marked scene.
- 4 To remove the MARKER SEARCH menu, press SEARCH.

#### To clear a Marked Scene

- 1 During disc playback, press SEARCH.  
The MARKER SEARCH menu will appear on the screen.
- 2 Use ◀▶ to select the Marker number that you want to erase.
- 3 Press CLEAR.  
The Marker number will be erased from the list.
- 4 Repeat steps 2 and 3 to erase additional Marker numbers.
- 5 To remove the MARKER SEARCH menu, press SEARCH.

### Special DVD Features **DVD**

#### Checking the Contents of DVD Video Discs: Menus

DVDs may offer menus that allow you to access special features. To use the disc menu, press MENU. Then, use the appropriate number button to select an option. Or, use the ◀▶▲▼ buttons to highlight your selection, then press SELECT/ENTER.

#### Title Menu **DVD**

- 1 Press TITLE.  
If the current title has a menu, the menu will appear on the screen. Otherwise, a disc menu may appear.
- 2 The menu can list camera angles, spoken language, subtitle options, and chapters for the title.
- 3 To remove the title menu, press TITLE again.

#### Disc Menu **DVD**

- 1 Press MENU.  
The disc menu is displayed.
- 2 To remove the disc menu, press MENU again.

#### Camera Angle **DVD**

If the disc contains scenes recorded at different camera angles, you can change to a different camera angle during playback.

- Press ANGLE repeatedly during playback to select a desired angle.  
The number of the current angle appears on the display.

#### Changing the Audio Language **DVD**



Press AUDIO repeatedly during playback to hear a different audio language or audio track.

#### Subtitles **DVD**

Press SUBTITLE repeatedly during playback to see the different subtitle languages available.

#### **N**ote

If Ⓞ appears, the feature is not available on the disc.

## Audio CD and MP3/WMA Operation

### Playing an Audio CD or MP3/WMA

#### Disc **CD** **MP3** **WMA**

The DVD Player can play audio CDs. Also, the DVD Player can play MP3/WMA formatted recordings on CD-ROM, CD-R, or CD-RW discs.

Before playing MP3/WMA recordings, read the notes on MP3/WMA Recordings on right.

#### 1 Insert a disc and close the tray.

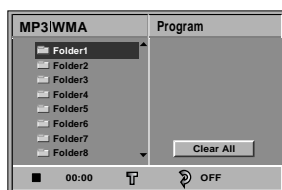
**Audio CD;** Audio CD menu appears on the TV screen go to step 3.

**MP3/WMA disc;** The MP3/WMA-JPEG choice menu appears on the TV screen. Go to step 2



#### 2 Use ▲/▼ to select the MP3/WMA then press SELECT/ENTER.

The MP3/WMA menu appears on the TV screen. Press RETURN to move to the MP3/WMA-JPEG choice menu.



#### 3 Use ▲/▼ to select a folder, and SELECT/ENTER.

A list of files in the folder appears.

#### 4 Use ▲/▼ to select a track then press PLAY or SELECT/ENTER.

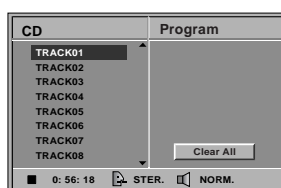
Playback starts.

During playback, the current track's elapsed playing time will appear on the display window and menu.

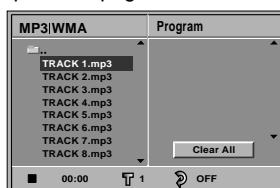
Playback will stop at the end of the disc.

Press TITLE to move to the next page.

Press MENU to move to the previous page.




Audio CD Menu



MP3/WMA Menu



If you are in a file list and want to return to the Folder list, use the ▲/▼ to highlight  and press SELECT/ENTER to return to the previous menu screen.

#### 5 To stop playback at any other time, press STOP.

### Notes on MP3/WMA Recordings

#### About MP3

- A MP3 file is audio data compressed by using the MPEG1 audio layer-3 file-coding scheme. Files that have the ".mp3" file extension are called "MP3 files".
- The player can not read a MP3 file that has a file extension other than ".mp3".

#### About WMA (Window Media Audio)

- A WMA file is Microsoft audio compression technology.
- WMA (Windows Media Audio) offers double the audio compression of the MP3 format.

#### MP3/WMA Disc compatibility with this player is limited as follows:

1. Sampling Frequency / only at 44.1kHz (MP3), 22.05 - 44.1kHz (WMA)
2. Bit rate / within 32 - 320kbps (MP3), 32 - 128kbps (WMA)
3. CD-R physical format should be "ISO 9660"
4. If you record MP3/WMA files using software which cannot create a FILE SYSTEM, for example "Direct-CD" etc., it is impossible to playback MP3/WMA files. We recommend that you use "Easy-CD Creator", which creates an ISO9660 file system.
5. A single session disc requires MP3/WMA files in the first track. If there is no MP3/WMA file in the 1st track, it cannot playback MP3/WMA files. If you wish to playback MP3/WMA files, format all the data in the disc or use a new one.
6. File names should be named using 8 letters or less and must incorporate ".mp3" or ".wma" extension e.g. "\*\*\*\*\*.mp3" or "\*\*\*\*\*.wma".
7. Do not use special letters such as "/ : \* ? " < > " etc.
8. Total number of files on the disc should be less than 650.

This DVD player requires discs/recordings to meet certain technical standards in order to achieve optimal playback quality. Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3 or WMA files). That require certain pre-existing conditions (see above) to insure compatible playback.

Customers should also note that permission is required in order to download MP3/WMA files and music from the Internet. Our company has no right to grant such permission. Permission should always be sought from the copyright owner.

## Audio CD and MP3/WMA Operation (Continued)

### Pause **CD** **MP3** **WMA**

- 1 Press PAUSE/STEP during playback.
- 2 To return to playback, press PLAY or press PAUSE/STEP again.

### Moving to another Track **CD** **MP3**

#### **WMA**

- Press SKIP/SCAN **⏮** or **⏭** briefly during playback to go to the next track or to return to the beginning of the current track.
- Press SKIP/SCAN **⏮** twice briefly to step back to the previous track.
- Listening an audio CD, to go directly to any track, enter the track number using the numbered buttons (0-9) during playback.

### Repeat Track/All/Off **CD** **MP3** **WMA**

- 1 To repeat the track currently playing, press REPEAT. The Repeat icon and "TRACK" appear on the menu screen.
- 2 To repeat all tracks on a disc, press REPEAT a second time. The Repeat icon and "ALL" appear on the menu screen.
- 3 To cancel Repeat mode, press REPEAT a third time. The Repeat icon and "OFF" appear on the menu screen.

### Search **CD** **MP3** **WMA**

- 1 Press and hold SKIP/SCAN **⏮** or **⏭** for about two seconds during playback. The player will now go into SEARCH mode.
- 2 Press and hold SKIP/SCAN **⏮** or **⏭** repeatedly to select the required speed: **⏮X2**, **⏮X4**, **⏮X8** (backward) or **⏭X2**, **⏭X4**, **⏭X8** (forward). Search speed and direction are indicated on the menu screen.
- 3 To exit SEARCH mode, press PLAY.

### Random **CD** **MP3** **WMA**

- 1 Press RANDOM during playback or in stop mode. The unit automatically begins Random Playback and RANDOM or "RAND." appears on the display window and menu screen.
- 2 To return to normal playback, press RANDOM repeatedly until RANDOM or "RAND." disappears from the display window and menu screen.

### Repeat A-B **CD**

To repeat a sequence.

- 1 During disc playback, press A-B at your chosen start point. The Repeat icon and "A \*" appear on the menu screen.
- 2 Press A-B again at your chosen end point. The Repeat icon and "A B" appear on the menu screen, and the sequence begins to play repeatedly.
- 3 To exit the sequence and return to normal play, press A-B again. The Repeat icon and "OFF" appear on the menu screen.

### 3D Surround **CD**

This unit can produce a 3D Surround effect, which simulates multi-channel audio playback from two conventional stereo speakers, instead of the five or more speakers normally required to listen to multi-channel audio from a home theater system.

- 1 Press DISPLAY during playback.
- 2 Use **◀** or **▶** to select the sound option. The sound option will be highlighted.
- 3 Use **▲** or **▼** to select "3D SUR". To turn off the 3D Surround effect, select "NORM".

### Changing the Audio Channel **CD**

Press AUDIO repeatedly during playback to hear a different audio channel (STER., LEFT, or RIGHT).

## JPEG Disc Operation

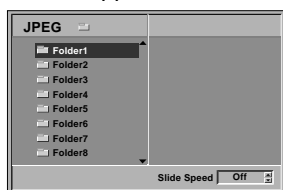
### Viewing a JPEG Disc **JPEG**

This DVD Player can play discs with JPEG files. Before playing JPEG recordings, read the notes on JPEG Recordings on right.

- 1 Insert a disc and close the tray.**  
The MP3/WMA-JPEG choice menu appears on the TV screen.



- 2 Use ▲/▼ to select the JPEG option then press SELECT/ENTER.**  
The JPEG menu appears on the TV screen.



- 3 Use ▲/▼ to select a folder, and SELECT/ENTER.**  
A list of files in the folder appears.  
Press RETURN to move to the MP3/WMA-JPEG choice menu.



If you are in a file list and want to return to the Folder list, use the ▲/▼ buttons on the remote to highlight “...” and press SELECT/ENTER to return to the previous menu screen.

- 4 If you want to view a particular file, use ▲/▼ to highlight a file and press SELECT/ENTER or PLAY.**

Viewing the file function starts.

During viewing a file mode, press RETURN to go back to the previous menu (JPEG menu).

Press TITLE to move to the next page.

Press MENU to move to the previous page.



There are several viewing Slide Speed options: Fast, Normal, Slow, and Off. Use ◀▶ to highlight the Slide Speed then use ▲/▼ to select the option you want to use, and then press SELECT/ENTER.

- 5 To stop viewing at any other time, press STOP.**  
The JPEG menu appears.

### Moving to another File

While viewing a picture, press SKIP/SCAN ◀◀ or ▶▶ once to advance to the next file or return to the previous file.

### Still Picture

- Press PAUSE/STEP during slide show.  
The player will now go into PAUSE mode.
- To return to the slide show, press PLAY or press PAUSE/STEP again.

### To flip the picture

Use ▲/▼ while showing a picture to flip the picture horizontally or a vertically.

### To rotate the picture

Use ◀▶ while showing a picture to rotate the picture clockwise or counter clockwise.

### Notes on JPEG Recordings

- Depending on the size and number of the JPEG files, it could take a long time for the DVD player to read the disc's content. If you don't see an on-screen display after several minutes, some of the files are too big — reduce the resolution of the JPEG files to less than 2 mega pixels and burn another disc.
- Total number of files and folders on the disc should be less than 650.
- Some discs may be incompatible due to different recording format or condition of the disc.
- When you are using software such as “Easy CD Creator” to burn jpeg files on a CD-R, ensure that all the selected files have the “.jpg” extension before copying into the CD layout.
- If the files have “.jpe” or “.jpeg” extensions, please rename them as “.jpg” files.
- File names without “.jpg” extension will not be able to be read by this DVD player, even though the files are shown as JPEG image files in Windows Explorer.


## Programmed Playback **CD** **MP3** **WMA**

### Programmed Playback with Audio CD and MP3/WMA Discs


The Program function enables you to store your favorite tracks from any disc in the DVD player's memory.

Program can contain 30 tracks.

#### **1** Press PROGRAM during playback or in the stop mode to enter the Program Edit mode.

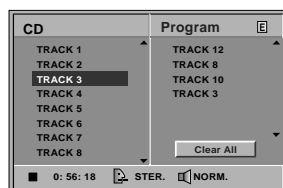
The  mark will appear to the right of the word Program on the right side of the menu screen.

#### **Note**

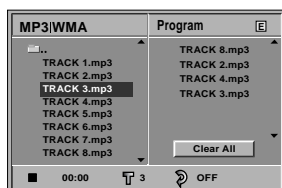
Press PROGRAM to exit the Program Edit mode; the  mark will disappear.

#### **2** Select a track, then press SELECT/ENTER to place the selected track on the Program list.

#### **3** Repeat step 2 to place additional tracks on the Program list.



Audio CD menu



MP3/WMA menu

#### **4** Press **▶**. The programmed track you selected last is highlighted on the program list.

#### **5** Use **▲/▼** to select the track you want to start playing. Press TITLE to move to the next page. Press MENU to move to the previous page.

#### **6** Press **PLAY** to start. Playback begins in the order in which you programmed the tracks and the "PROG." appears on the menu screen. Playback stops after all of the tracks on the Program list have played once.

#### **7** To resume normal playback from programmed playback, select a track of CD (or MP3/WMA) list and then press **SELECT/ENTER**.

"PROG." indicator disappears on the menu screen.

### Repeat Programmed Tracks

- To repeat the track currently playing, press REPEAT. The Repeat icon and "TRACK" appears on the menu screen.
- To repeat all tracks on the program list, press REPEAT a second time. The Repeat icon and "ALL" appears on the menu screen.
- To cancel Repeat mode, press REPEAT a third time. The Repeat icon and "OFF" appears on the menu screen.

### Erasing a Track from the Program List

#### **1** Press PROGRAM during playback (Audio CD and MP3/WMA disc only) or in the Stop mode to enter the Program Edit mode.

The  mark will appear.

#### **2** Press **▶** to move to the Program list.

#### **3** Use **▲/▼** to select the track that you wish to erase from the Program list.

#### **4** Press CLEAR.

The track will be erased from the Program List.

### Erasing the Complete Program List

#### **1** Follow steps 1-2 of "Erasing a Track from Program List" as above.

#### **2** Use **▲/▼** to select "Clear All", then press SELECT/ENTER.

The complete Program for the disc will be erased.

The programs are also cleared when the disc is removed.

## Additional Information

### Screen Saver

The screen saver appears if you leave the DVD Player in Stop mode for about five minutes.

After the Screen Saver has been engaged for about five minutes, the DVD Player will automatically turn itself off.

### Video Mode Setting **DVD**

- With certain discs, the playback picture may be flickering or Dot Crawl is shown on straight lines. That means Vertical interpolation or De-interlace is not perfectly matched with the disc. In this case, the picture quality may be improved by changing the video mode.
- To change the video mode, press and hold DISPLAY about 3 seconds during disc playback. The new video mode number selected is displayed on the TV screen. Check whether the video quality has improved. If not, repeat the above procedure until picture quality is improved.
- Video mode sequence:  
MODE1 → MODE2 → MODE3 → MODE1
- If you turn off the power, the video mode will return to initial default state (MODE1).

### Detailed Descriptions for Video Modes

**MODE1:** The source material of the DVD video (film material or video material) is determined from disc information.

**MODE2:** Suitable for playing film based content or video based material recorded by the progressive scan method.

**MODE3:** Suitable for playing video based content with comparatively little motion.

### Note

The video mode setting only works when the Progressive Scan mode is set to "On" in the Setup menu.



## Troubleshooting

Check the following troubleshooting chart for the possible cause of a problem before contacting service.

Problem	Possible Cause	Solution
No power.	<ul style="list-style-type: none"> <li>The power cord is disconnected.</li> </ul>	<ul style="list-style-type: none"> <li>Plug the power cord into the wall power outlet securely.</li> </ul>
The power is on, but the DVD player does not work.	<ul style="list-style-type: none"> <li>No disc is inserted.</li> </ul>	<ul style="list-style-type: none"> <li>Insert a disc. (Check that the DVD or, audio CD indicator in the display window lights.)</li> </ul>
No picture.	<ul style="list-style-type: none"> <li>The TV is not set to receive DVD signal output.</li> </ul>	<ul style="list-style-type: none"> <li>Select the appropriate video input source on the TV so the picture from the DVD player appears on the TV screen.</li> </ul>
	<ul style="list-style-type: none"> <li>The video cable is not connected securely.</li> </ul>	<ul style="list-style-type: none"> <li>Connect the video cable securely.</li> </ul>
	<ul style="list-style-type: none"> <li>The connected TV power is turned off.</li> </ul>	<ul style="list-style-type: none"> <li>Turn on the TV.</li> </ul>
No sound.	<ul style="list-style-type: none"> <li>The equipment connected with the audio cable is not set to receive DVD signal output.</li> </ul>	<ul style="list-style-type: none"> <li>Select the correct input source on the audio receiver so you can listen to the sound from the DVD player.</li> </ul>
	<ul style="list-style-type: none"> <li>The audio cable is not connected securely.</li> </ul>	<ul style="list-style-type: none"> <li>Connect the audio cable securely.</li> </ul>
	<ul style="list-style-type: none"> <li>The power of the equipment connected with the audio cable is turned off.</li> </ul>	<ul style="list-style-type: none"> <li>Turn on the equipment connected with the audio cable.</li> </ul>
	<ul style="list-style-type: none"> <li>The Digital Audio Output is set to the wrong position.</li> </ul>	<ul style="list-style-type: none"> <li>Set the Digital Audio Output to the correct position, then turn on the DVD player again by pressing POWER.</li> </ul>
The playback picture is poor.	<ul style="list-style-type: none"> <li>The disc is dirty.</li> </ul>	<ul style="list-style-type: none"> <li>Clean the disc.</li> </ul>
The DVD player does not start playback.	<ul style="list-style-type: none"> <li>No disc is inserted.</li> </ul>	<ul style="list-style-type: none"> <li>Insert a disc. (Check that the DVD, or audio CD indicator in the DVD display lights.)</li> </ul>
	<ul style="list-style-type: none"> <li>An unplayable disc is inserted.</li> </ul>	<ul style="list-style-type: none"> <li>Insert a playable disc. (Check the disc type, color system, and Regional Code.)</li> </ul>
	<ul style="list-style-type: none"> <li>The disc is placed upside down.</li> </ul>	<ul style="list-style-type: none"> <li>Place the disc with the playback side down.</li> </ul>
	<ul style="list-style-type: none"> <li>The disc is not placed within the guide.</li> </ul>	<ul style="list-style-type: none"> <li>Place the disc on the disc tray correctly inside the guide.</li> </ul>
	<ul style="list-style-type: none"> <li>The disc is dirty.</li> </ul>	<ul style="list-style-type: none"> <li>Clean the disc.</li> </ul>
	<ul style="list-style-type: none"> <li>A Lock level is set.</li> </ul>	<ul style="list-style-type: none"> <li>Cancel the Rating function or change the rating level.</li> </ul>
The remote control does not work properly.	<ul style="list-style-type: none"> <li>The remote control is not pointed at the remote sensor of the DVD player.</li> </ul>	<ul style="list-style-type: none"> <li>Point the remote control at the remote sensor of the DVD player.</li> </ul>
	<ul style="list-style-type: none"> <li>The remote control is too far from the DVD player.</li> </ul>	<ul style="list-style-type: none"> <li>Operate the remote control within 23 ft (7 m).</li> </ul>
	<ul style="list-style-type: none"> <li>There is an obstacle between the remote control and the DVD player.</li> </ul>	<ul style="list-style-type: none"> <li>Remove the obstacle.</li> </ul>
	<ul style="list-style-type: none"> <li>The batteries in the remote control are exhausted.</li> </ul>	<ul style="list-style-type: none"> <li>Replace the batteries with new ones.</li> </ul>



## Language Code List

Enter the appropriate code number for the initial settings “Disc Audio”, “Disc Subtitle” and/or “Disc Menu” (See page 13).

Code	Language	Code	Language	Code	Language	Code	Language
6566	Abkhazian	7074	Fiji	7678	Lingala	8373	Singhalese
6565	Afar	7073	Finnish	7684	Lithuanian	8375	Slovak
6570	Afrikaans	7082	French	7775	Macedonian	8376	Slovenian
8381	Albanian	7089	Frisian	7771	Malagasy	8379	Somali
6577	Ameharic	7176	Galician	7783	Malay	6983	Spanish
6582	Arabic	7565	Georgian	7776	Malayalam	8385	Sudanese
7289	Armenian	6869	German	7784	Maltese	8387	Swahili
6583	Assamese	6976	Greek	7773	Maori	8386	Swedish
6588	Aymara	7576	Greenlandic	7782	Marathi	8476	Tagalog
6590	Azerbaijani	7178	Guarani	7779	Moldavian	8471	Tajik
6665	Bashkir	7185	Gujarati	7778	Mongolian	8465	Tamil
6985	Basque	7265	Hausa	7865	Nauru	8484	Tatar
6678	Bengali; Bangla	7387	Hebrew	7869	Nepali	8469	Telugu
6890	Bhutani	7273	Hindi	7879	Norwegian	8472	Thai
6672	Bihari	7285	Hungarian	7982	Oriya	6679	Tibetan
6682	Breton	7383	Icelandic	8065	Panjabi	8473	Tigrinya
6671	Bulgarian	7378	Indonesian	8083	Pashto, Pushto	8479	Tonga
7789	Burmese	7365	Interlingua	7065	Persian	8482	Turkish
6669	Byelorussian	7165	Irish	8076	Polish	8475	Turkmen
7577	Cambodian	7384	Italian	8084	Portuguese	8487	Twi
6765	Catalan	7465	Japanese	8185	Quechua	8575	Ukrainian
9072	Chinese	7487	Javanese	8277	Rhaeto-Romance	8582	Urdu
6779	Corsican	7578	Kannada	8279	Rumanian	8590	Uzbek
7282	Croatian	7583	Kashmiri	8285	Russian	8673	Vietnamese
6783	Czech	7575	Kazakh	8377	Samoan	8679	Volapük
6865	Danish	7589	Kirghiz	8365	Sanskrit	6789	Welsh
7876	Dutch	7579	Korean	7168	Scots Gaelic	8779	Wolof
6978	English	7585	Kurdish	8382	Serbian	8872	Xhosa
6979	Esperanto	7679	Laothian	8372	Serbo-Croatian	7473	Yiddish
6984	Estonian	7665	Latin	8378	Shona	8979	Yoruba
7079	Faroese	7686	Latvian, Lettish	8368	Sindhi	9085	Zulu

## Country Code List

Enter the appropriate code number for the initial setting “Country Code” (See page 15).

Code	Country	Code	Country	Code	Country	Code	Country
AD	Andorra	ER	Eritrea	LC	Saint Lucia	SC	Seychelles
AE	United Arab Emirates	ES	Spain	LI	Liechtenstein	SD	Sudan
AF	Afghanistan	ET	Ethiopia	LK	Sri Lanka	SE	Sweden
AG	Antigua and Barbuda	FI	Finland	LR	Liberia	SG	Singapore
AI	Anguilla	FJ	Fiji	LS	Lesotho	SH	Saint Helena
AL	Albania	FK	Falkland Islands	LT	Lithuania	SI	Slovenia
AM	Armenia	FM	Micronesia	LU	Luxembourg	SJ	Svalbard and Jan Mayen Islands
AN	Netherlands Antilles	FO	Faroe Islands	LV	Latvia	SK	Slovak Republic
AO	Angola	FR	France	LY	Libya	SL	Sierra Leone
AQ	Antarctica	FX	France (European Territory)	MA	Morocco	SM	San Marino
AR	Argentina	GA	Gabon	MC	Monaco	SN	Senegal
AS	American Samoa	GB	Great Britain	MD	Moldavia	SO	Somalia
AT	Austria	GD	Grenada	MG	Madagascar	SR	Suriname
AU	Australia	GE	Georgia	MH	Marshall Islands	ST	Saint Tome and Principe
AW	Aruba	GF	French Guyana	MK	Macedonia	SU	Former USSR
AZ	Azerbaijan	GH	Ghana	ML	Mali	SV	El Salvador
BA	Bosnia-Herzegovina	GI	Gibraltar	MM	Myanmar	SY	Syria
BB	Barbados	GL	Greenland	MN	Mongolia	SZ	Swaziland
BD	Bangladesh	GM	Gambia	MO	Macau	TC	Turks and Caicos Islands
BE	Belgium	GN	Guinea	MP	Northern Mariana Islands	TD	Chad
BF	Burkina Faso	GP	Guadeloupe (French)	MQ	Martinique (French)	TF	French Southern Territories
BG	Bulgaria	GQ	Equatorial Guinea	MR	Mauritania	TG	Togo
BH	Bahrain	GR	Greece	MS	Montserrat	TH	Thailand
BI	Burundi	GS	S. Georgia & S. Sandwich Isls.	MT	Malta	TJ	Tadjikistan
BJ	Benin	GT	Guatemala	MU	Mauritius	TK	Tokelau
BM	Bermuda	GU	Guam (USA)	MV	Maldives	TM	Turkmenistan
BN	Brunei Darussalam	GW	Guinea Bissau	MW	Malawi	TN	Tunisia
BO	Bolivia	GY	Guyana	MX	Mexico	TO	Tonga
BR	Brazil	HK	Hong Kong	MY	Malaysia	TP	East Timor
BS	Bahamas	HM	Heard and McDonald Islands	MZ	Mozambique	TR	Turkey
BT	Bhutan	HN	Honduras	NA	Namibia	TT	Trinidad and Tobago
BV	Bouvet Island	HR	Croatia	NC	New Caledonia (French)	TV	Tuvalu
BW	Botswana	HT	Haiti	NE	Niger	TW	Taiwan
BY	Belarus	HU	Hungary	NF	Norfolk Island	TZ	Tanzania
BZ	Belize	ID	Indonesia	NG	Nigeria	UA	Ukraine
CA	Canada	IE	Ireland	NI	Nicaragua	UG	Uganda
CC	Cocos (Keeling) Islands	IL	Israel	NL	Netherlands	UK	United Kingdom
CF	Central African Republic	IN	India	NO	Norway	UM	USA Minor Outlying Islands
CG	Congo	IO	British Indian Ocean Territory	NP	Nepal	US	United States
CH	Switzerland	IQ	Iraq	NR	Nauru	UY	Uruguay
CI	Ivory Coast	IR	Iran	NU	Niue	UZ	Uzbekistan
CK	Cook Islands	IS	Iceland	NZ	New Zealand	VA	Vatican City State
CL	Chile	IT	Italy	OM	Oman	VC	Saint Vincent & Grenadines
CM	Cameroon	JM	Jamaica	PA	Panama	VE	Venezuela
CN	China	JO	Jordan	PE	Peru	VG	Virgin Islands (British)
CO	Colombia	JP	Japan	PF	Polynesia (French)	VI	Virgin Islands (USA)
CR	Costa Rica	KE	Kenya	PG	Papua New Guinea	VN	Vietnam
CS	Former Czechoslovakia	KG	Kyrgyzstan	PH	Philippines	VU	Vanuatu
CU	Cuba	KH	Cambodia	PK	Pakistan	WF	Wallis and Futuna Islands
CV	Cape Verde	KI	Kiribati	PL	Poland	WS	Samoa
CX	Christmas Island	KM	Comoros	PM	Saint Pierre and Miquelon	YE	Yemen
CY	Cyprus	KN	Saint Kitts & Nevis Anguilla	PN	Pitcairn Island	YT	Mayotte
CZ	Czech Republic	KP	North Korea	PR	Puerto Rico	YU	Yugoslavia
DE	Germany	KR	South Korea	PT	Portugal	ZA	South Africa
DJ	Djibouti	KW	Kuwait	PW	Palau	ZM	Zambia
DK	Denmark	KY	Cayman Islands	PY	Paraguay	ZR	Zaire
DM	Dominica	KZ	Kazakhstan	QA	Qatar	ZW	Zimbabwe
DO	Dominican Republic	LA	Laos	RE	Reunion (French)		
DZ	Algeria	LB	Lebanon	RO	Romania		
EC	Ecuador			RU	Russian Federation		
EE	Estonia			RW	Rwanda		
EG	Egypt			SA	Saudi Arabia		
EH	Western Sahara			SB	Solomon Islands		

# Specifications

## General

Power requirements	AC 120 V, 60 Hz
Power consumption	14W
Dimensions (Approx.)	430 X 48 X 242 mm (16.9 x 1.9 x 9.5 inches) (w x h x d)
Weight (Approx.)	2.34 kg (5.2 lbs)
Operating temperature	5°C to 35°C (41°F to 95°F)
Operating humidity	5 % to 90 %

## System

Laser	Semiconductor laser, wavelength 650 nm
Signal system	NTSC
Frequency response	DVD (PCM 96 kHz): 8 Hz to 44 kHz DVD (PCM 48 kHz): 8 Hz to 22 kHz CD: 8 Hz to 20 kHz
Signal-to-noise ratio	More than 100dB (ANALOG OUT connectors only)
Harmonic distortion	Less than 0.008%
Dynamic range	More than 100 dB (DVD) More than 95 dB (CD)

## Outputs

VIDEO OUT	1 Vp-p 75 Ω, sync negative, RCA jack x 1
S-VIDEO OUT	(Y) 1.0 V (p-p), 75 Ω, negative sync, Mini DIN 4-pin x 1 (C) 0.3 V (p-p) 75 Ω
COMPONENT VIDEO OUT	(Y) 1.0 V (p-p), 75 Ω, negative sync, RCA jack x 1 (Pb)/(Pr) 0.7 V (p-p), 75 Ω, RCA jack x 2
Audio output (digital audio)	0.5 V (p-p), 75 Ω, RCA jack x 1
Audio output (analog audio)	2.0 Vrms (1 kHz, 0 dB), 600 Ω, RCA jack (L, R) x 1

## Accessories

S-Video cable	.....1
Video cable	.....1
Audio cable	.....1
Remote control	.....1
Batteries	.....2

- Design and specifications are subject to change without prior notice.

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## ZENITH ELECTRONICS CORPORATION DVD PLAYER DVB312 LIMITED WARRANTY - USA

Zenith will repair or replace your product, at Zenith's option, if it proves to be defective in material or workmanship under normal use, during the warranty period ("Warranty Period") listed below, effective from the date ("Date of Purchase") of original consumer purchase of the product. This warranty is good only to the original purchaser of the product and effective only when used in the United States, excluding U.S. Territories.

<b><u>WARRANTY PERIOD:</u></b>	<b><u>HOW SERVICE IS HANDLED:</u></b>
<b>LABOR: 90 DAYS</b> from the Date of Purchase.	<b>Call 1-800-984-9349</b> for instructions on getting the defective unit repaired or replaced.
<b>PARTS: ONE YEAR</b> from the Date of Purchase.	<b>Please retain dated sales receipt and your box</b> to return the unit to Zenith for repair or replacement.
<b>Repaired or Replacement Unit</b> is warranted for the remaining period of the original warranty.	Both ways shipping charges will be borne by Zenith during the Warranty Period. After the Warranty Period, you pay in-bound shipping charges and Zenith pays return shipping charges.

**THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT ANY IMPLIED WARRANTY IS REQUIRED BY LAW, IT IS LIMITED IN DURATION TO THE EXPRESS WARRANTY PERIOD ABOVE. ZENITH WILL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES OF ANY KIND, INCLUDING LOST REVENUES OR PROFITS, IN CONNECTION WITH THE PRODUCT. SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.**

### **THIS LIMITED WARRANTY DOES NOT APPLY TO:**

1. Damages or operating problems that result from shipping, installation, adjustment of user controls, calibration, maintenance or failure to maintain, or separate system components; and
2. Damages or operating problems that result from normal wear and tear, misuse, abuse, operation outside environmental specifications or contrary to the requirements or precautions in the Operating Guide, accident, lightning strikes or other natural causes, unauthorized modification or alteration, incorrect electrical current or voltage, software errors that do not disable functionality, operating software protocols adopted after the date of manufacture or for outside the U.S., institutional or commercial use, or other causes not arising out of defect in material or workmanship.
3. **Therefore, the cost of repair or replacement of such defective product shall be borne by the consumer.**

### **CUSTOMER INTER-ACTIVE CENTER NUMBERS:**

<b>For Warranty Service</b>	<b>Call 1-800-984-9349</b> (Monday~ Friday, 7 AM ~ 7 PM CT) Retain your dated sales receipt to prove the Date of Purchase as well as your box for shipping the unit to Zenith, for warranty service. Legible copy of your sales receipt must be submitted with the unit at the time the unit is returned for warranty service.
<b>For Post Warranty Repair</b>	For repair or replacement after the Warranty Period has expired, <b>Call 1-800-984-9349</b> (Monday~ Friday, 7 AM ~ 7 PM CT)
<b>For Where-to buy, Product Assistance, or Customer Assistance</b>	<b>Call 1-877-9Zenith (1-877-993-6484)</b> (Monday~ Friday, 7 AM ~ 8 PM CT and Saturday, 8 AM ~ 5 PM CT) and select appropriate option from the menu. Or visit our website at <a href="http://www.zenithservice.com">http://www.zenithservice.com</a>

### **FOR WARRANTY SERVICE:**

You must call **1-800-984-9349** (Monday~ Friday, 7 AM to 8 PM CT) and select appropriate option from the menu to confirm the product is defective and to obtain Return Authorization (RA). During the Warranty Period, Zenith will send you a return-shipping label. After you obtain RA for return, please box your unit with a copy of the sales receipt and enough packing material to ensure undamaged delivery of your product. When you receive the label, place it on the box and call the 800 # in the instruction for pick-up. When your unit is received, Zenith will repair or replace your unit in accordance with this Limited Warranty.

**ADVANCE SHIPMENT.** If replacement unit is available and you want second day delivery, our service representative will ask for your credit card number. Zenith requires a reserved deposit by credit card as surety for such advance shipment. Your credit card will not be charged if you return the defective unit in 10 business days. For advance shipment, the return label will come with the replacement unit sent to you. Please follow boxing and shipping instructions above.